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1312783

DRAWINGS ATTACHED

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(54) AN IMPROVEMENT IN OR RELATING TO PACKS OF BAGS FOR CONTAINING GOODS

(71) We, DALE PRODUCTS (PLASTICS) LIMITED, a British Company, of Platts Common, Barnsley, Yorkshire, do hereby declare the invention, for which we pray that a patent may be granted to us and the method by which it is to be performed to be particularly described in and by the following statement:—

The invention relates to packs of bags for containing goods and has for its object to provide an improvement therein. In particular, though not exclusively, the invention relates to packs of bags made of a synthetic plastics material.

It is a time wasting job for a shopkeeper to have to open a bag before he is able to empty goods which he is selling into the bag. For example, if he has just weighed a quarter pound of sweetmeats, he wants to be able to pour them into a bag with the minimum of delay so that he can complete the sale and go on to serve another customer. The problem is particularly acute when the bags being used are made of a synthetic plastics material because the underlying and overlying sheets of such a bag tend to adhere together. The problem is also present when the bags being used are paper bags, but to a lesser extent. The difficulty is of course not confined to shopkeepers; housewives also have the same problem when packing sandwiches into bags for example, but of course the problem there is not so serious, it is merely frustrating. However, the invention aims to at least minimise the problem.

According to one aspect of the invention, there is provided a stack of bags each of which has an underlying and an overlying sheet, the underlying sheet extending forwardly some distance beyond the overlying sheet at an openable end of the bag, the stack of bags being packed within a box which has an opening through which a topmost bag can be withdrawn from the stack, and the box having an appendage or part adjacent an end wall and extending from said end wall to such an extent that it at least partially overlies the forwardly extending portions of the underlying sheets of the bags but does not appreciably overlie if at all the overlying sheets of the bags, the arrangement being such that when a bag is withdrawn through the opening inn the box the interference of the forwardly extending portion of the underlying sheet of the bag with the inwardly projecting appendage or part of the box causes the bag to be opened as the bag is withdrawn. The appendage which extends inwardly from the end wall of the box preferably projects therefrom and is preferably in the nature of a flange. In this case it will preferably extend the full width of the box and will preferably be an integral part of the box. The opening in the box through which the bags can be withdrawn from the stack is preferably somewhat narrower than the width of the bags. Preferably also, the depth of the opening in the box will be shallow in relation to its width. A gap will preferably be formed in the inwardly projecting flange of the box and said gap will preferably continue down the end wall of the box from which the flange projects. The opening in the box through which a topmost bag can be withdrawn from the stack, and/or the gap in the inwardly projecting flange of the box, may be defined by a line of perforations in unbroken surfaces of the box. The bags will preferably be made of a synthetic plastics material and the box will preferably be made of cardboard.

In order that the invention may be fully understood and readily carried into effect, the same will now be described, by way of example only, with reference to the drawings accompanying the Provisional Specification, of which:—

Fig. 1 is a perspective view of a pack of bags embodying the invention,

Fig. 2 is a perspective view, drawn to a somewhat smaller scale than Fig. 1, of one of the bags, and

Fig. 3 is a perspective view, drawn to a somewhat larger scale than Fig. 1, of one end

of the stack as a topmost bag is being withdrawn from the stack.

Referring now to the drawings, a stack of bags 10 is packed within a box 12. Each bag 10 is made of a synthetic plastics material and comprises an underlying sheet 14 and an overlying sheet 16. As best seen in Fig. 2, the underlying sheet of each bag extends forwardly some distance beyond the overlying sheet at an openable end of the bag.

The box 12 is made of cardboard and has an opening 18 through which a topmost bag can be withdrawn from the box. The opening is positioned near an end of the box at which the openable ends of the bags are located. As can best be seen in Fig. 1, the opening 18 is somewhat narower than the width of the bags and its depth is shallow in relation to its width. It is bounded on one side by a flange 20 which projects inwardly from an end wall 22 of the box to such an extent that it partially overlies the forwardly extending portions of the underlying sheets of the bags. A gap 24 is formed in the flange and extends down the end wall 22 and a little way into a basal wall (not shown) as indicated in dotted lines.

The arrangement is such that when a bag is to be withdrawn through the opening 18, the overlying sheet of the bag can be puckered together between finger and thumb as shown in Fig. 3 so that the bag can be drawn out. The interference of the forwardly extending portion of the underlying sheet of the bag with the inwardly projecting appendage of the box, that is the flange 20, causes the bag to be opened (or in other words causes the underlying and overlying sheets of the bag to be pulled apart at its openable end) as the bag is withdrawn. Consequently, this avoids a great deal of time wasting and trouble, particularly on the part of a shopkeeper who is able to reach for a bag with one hand and simultaneously bring the goods he is selling towards the bag with the other.

Various modifications may be made without departing from the scope of the invention. For example, the opening in the box through which the bags can be withdrawn from the stack of bags could if preferred extend the full width of the box and it may be found that it is not absolutely essential for the flange 20 to be gapped. The gap 24 certainly need not extend down the end wall of the box. The appendage of the box need not necessarily be an integral part of the box of course; it could instead be an angle piece or a pair of spaced angle pieces, for example, attached to the end wall of the box. Indeed, the appendage could be replaced by a loose part disposed within the box, for example, a length of wood dowel of a length rather less than the width of the box. In this case the loose part will bear upon the forwardly extending portions of the underlying sheets of the bags and will have the added advantage over the arrangement illustrated that it will fall at the rate at which the bags are removed from the box. Of course, in this case there is the disadvantage that the box must be placed on a flat surface with the opening 18 uppermost whereas the arrangement illustrated may be used in the manner illustrated or the box can be hung on the wall, for example, so that the opening 18 is in what becomes a front wall of the box. It will of course be understood that the embodiment illustrated has been described as though it has been laid flat on a horizonal surface, a table top perhaps, and reference to "topmost" bags and "end" wall 22 must be construed accordingly.

Whilst the invention has been found to be particularly useful for packs of synthetic plastics bags, it may be used also for packs of paper bags. Similarly, although the box described has been made of cardboard, it could be made of any other suitable material, for example a synthetic plastics material.

The distance by which the underlying sheets of the bags need extend forwardly of the overlying sheets may easily be determined by trial and experiment. However, a forward extension in the region of half an inch has been found to be suitable. It should also be noted that it is preferable that the appendage of the box, or the part adjacent the end wall of the box, which at least partially overlies the forwardly extending portions of the underlying sheets of the bags should not overlie any part of the overlying sheets of the bags. In other words that the edge of the overlying sheet of the topmost bag, at its openable end, should be visible through the opening 18 as shown in Fig. 1. However, some slight overlap is in fact permissible because in this case it will be found that when the overlying sheet of the topmost bag is puckered together between finger and thumb as shown in Fig. 3, the topmost sheet will release itself from beneath the appendage or part before the forwardly extending portion of the underlying sheet is able to do so. Here again the extent to which such overlap may take place without introducing difficulties in removing the bags may be determined by trial and experiment.

It will of course be understood that when a pack of bags embodying the invention is sold to a buyer, the box in which the bags are packed may have unbroken surfaces, the opening in the box through which a topmost bag can be withdrawn from the stack, and/or the gap in the inwardly projecting flange of the box, may be defined by a line of perforations. These parts of the box defined by the perforations can then easily be removed prior to the bags being required for use.

WHAT WE CLAIM IS:—

1. A stack of bags each of which has an underlying and an overlying sheet, the under-

lying sheet extending forwardly some distance beyond the overlying sheet at an openable end of the bag, the stack of bags being packed within a box which has an opening through which a topmost bag can be withdrawn from the stack, and the box having an appendage or part adjacent an end wall and extending from said end wall to such an extent that it at least partially overlies the forwardly extending portions of the underlying sheets of the bags but does not appreciably overlie if at all the overlying sheets of the bags, the arrangement being such that when a bag is withdrawn through the opening in the box the interference of the forwardly extending portion of the underlying sheet of the bag with the inwardly projecting appendage or part of the box causes the bag to be opened as the bag is withdrawn.

2. A stack of bags according to claim 1, in which the appendage which extends inwardly from the end wall of the box projects therefrom and is in the nature of a flange.

3. A stack of bags according to either one of the preceding claims, in which the appendage extends the full width of the box and is an integral part of the box.

4. A stck of bags according to claim 3, in which a gap is formed in the appendage of the box and said gap continues down the end wall of the box from which the appendage projects.

5. A stack of bags according to any one of the preceding claims, in which the opening in the box through which the bags can be withdrawn from the stack is somewhat narrower than the width of the bags.

6. A stack of bags according to any one of the preceding claims, in which the depth of the opening in the box is shallow in relation to its width.

7. A stack of bags according to any one of claims 2 to 6, in which the opening in the box through which a topmost bag can be withdrawn from the stack, and/or the gap in the inwardly projecting flange of the box, is defined by a line of perforations in unbroken surfaces of the box.

8. A stack of bags according to any one of the preceding claims, in which the bags are made of a synthetic plastics material and the box is made of cardboard.

9. A stack of bags arranged substantially as hereinbefore described with reference to and as illustrated by the drawings accompanying the Provisional Specification.

10. A box for receiving a stack of bags, said box being constructed and arranged substantially as hereinbefore described with reference to and as ilustrated by the drawings accompanying the Provisional Specification.

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1312783 PROVISIONAL SPECIFICATION
1 SHEET *This drawing is a reproduction of the Original on a reduced scale*

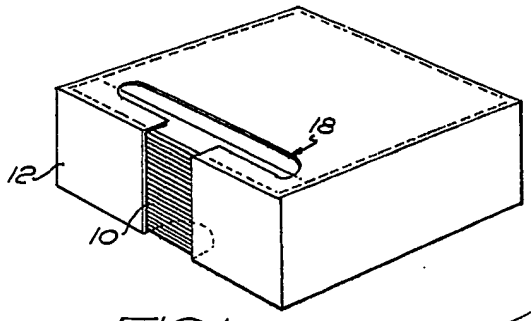

FIG.1

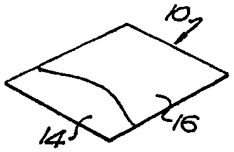

FIG.2

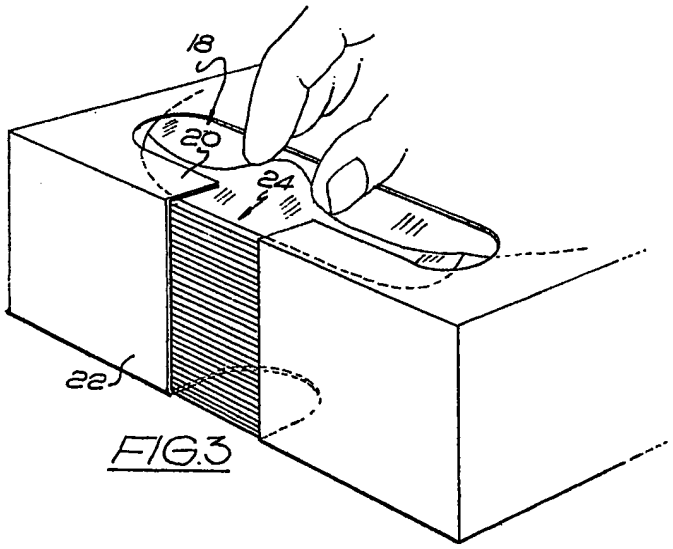

FIG.3